

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for electronically managing consumer preferences, said method comprising the steps of:

transmitting consumer preferences for a particular user from a portable data processing system associated with said particular user in a transmittable data format to a plurality of independent server systems each associated with a particular consumer provider from among a plurality of consumer providers; and

receiving designated offerings of services and products in accordance with said consumer preferences from said plurality of independent server systems at said portable data processing system in said transmittable data format; and

filtering output of said designated offerings of services and products at an output interface associated with said portable data processing system according to user output filtering preferences, such that said particular user receives a filtered selection of said electronically provided services and products via an output interface associated with said portable data processing system.

2. (canceled)

3. (original) The method for electronically managing consumer preferences according to claim 1, said step of transmitting consumer preferences for a particular user from a portable data processing system associated with said particular user in a transmittable data format to a plurality of independent server systems, further comprising the steps of:

detecting the location of said portable data processing system with a global positioning system associated with said portable data processing system; and

transmitting said location of said portable data processing system in said transmittable data format to said plurality of independent server systems.

4. (original) The method for electronically managing consumer preferences according to claim 1, said step of transmitting consumer preferences for a particular user from a portable data

processing system associated with said particular user in a transmittable data format to a plurality of independent server systems, further comprising the step of:

transmitting a user profile with said consumer preferences for a particular user from said portable data processing system in said transmittable data format to a particular server system from among said plurality of independent server systems.

5. (original) The method for electronically managing consumer preferences according to claim 1, said step of transmitting consumer preferences for a particular user from a portable data processing system associated with said particular user in a transmittable data format to a plurality of independent server systems, further comprising the step of:

filtering transmission of said consumer preferences according to transmission preferences designated by said particular user at said portable data processing system.

B2
cont.
6. (original) The method for electronically managing consumer preferences according to claim 1, said step of transmitting consumer preferences for a particular user from a portable data processing system associated with said particular user in a transmittable data format to a plurality of independent server systems, further comprising the step of:

converting said consumer preferences designated for a particular user into said transmittable data format.

7. (original) The method for electronically managing consumer preferences according to claim 6, said step of converting consumer preferences further comprising the step of:

converting said consumer preferences into an extensible mark-up language data format.

8. (currently amended) ~~The method for electronically managing consumer preferences according to claim 1, said method further comprising the step of:~~ A method for electronically managing consumer preferences, said method comprising the steps of:

transmitting consumer preferences for a particular user from a portable data processing system associated with said particular user in a transmittable data format to a plurality of independent server systems each associated with a particular consumer provider from among a plurality of consumer providers;

receiving designated offerings of services and products in accordance with said consumer preferences from said plurality of independent server systems at said portable data processing system in said transmittable data format; and

analyzing said designated offerings of services and products received from each of said plurality of independent server systems at said portable data processing system.

9. (original) The method for electronically managing consumer preferences according to claim 8, said step of analyzing said designated offerings of services and products further comprising the steps of:

analyzing said designated offerings of services and products according to travel time to said venues for said consumer providers in view of scheduling constraints for said particular user; and

recommending a selection of said venues with travel times that are acceptable in view of said scheduling constraints for said particular user.

B2
cont.
10. (original) The method for electronically managing consumer preferences according to claim 8, said step of analyzing said designated offerings of services and products further comprising the steps of:

analyzing said designated offerings of services and products according to price and budget constraints for said particular user; and

outputting a recommended selection of said designated products and services that are acceptable in view of said budgetary constraints to an output interface controlled by said portable data processing system.

11. (original) The method for electronically managing consumer preferences according to claim 1, said method further comprising the step of:

in response to a user selection from among said designated products and services, transmitting said user selection and payment authorization from said portable data processing system to a particular server system from among said plurality of independent server systems that provides said selection from among said designated offerings of services and products.

12. (currently amended) A system for electronically managing consumer preferences, said system comprising:

means for transmitting consumer preferences for a particular user from a portable data processing system associated with said particular user in a transmittable data format to a plurality of independent server systems each associated with a particular consumer provider from among a plurality of consumer providers; ~~and~~

means for receiving designated offerings of services and products in accordance with said consumer preferences from said plurality of independent server systems at said portable data processing system in said transmittable data format; and

means for filtering output of said designated offerings of services and products at an output interface associated with said portable data processing system according to user output filtering preferences, such that said particular user receives a filtered selection of said electronically provided services and products via an output interface associated with said portable data processing system.

B2
Cont.
13. (canceled)

14. (previously amended) The system for electronically managing consumer preferences according to claim 12, said means for transmitting consumer preferences for a particular user from a portable data processing system associated with said particular user in a transmittable data format to a plurality of independent server systems, further comprising:

means for detecting the location of said portable data processing system with a global positioning system associated with said portable data processing system; and

means for transmitting said location of said portable data processing system in said transmittable data format to said plurality of independent server systems.

15. (previously amended) The system for electronically managing consumer preferences according to claim 12, said means for transmitting consumer preferences for a particular user from a portable data processing system associated with said particular user in a transmittable data format to a plurality of independent server systems, further comprising:

means for transmitting a user profile with said consumer preferences for a particular user from said portable data processing system in said transmittable data format to a particular server system from among said plurality of independent server systems.

16. (previously amended) The system for electronically managing consumer preferences according to claim 12, said means for transmitting consumer preferences for a particular user from a portable data processing system associated with said particular user in a transmittable data format to a plurality of independent server systems, further comprising:

means for filtering transmission of said consumer preferences according to transmission preferences designated by said particular user at said portable data processing system.

17. (previously amended) The system for electronically managing consumer preferences according to claim 12, said means for transmitting consumer preferences for a particular user from a portable data processing system associated with said particular user in a transmittable data format to a plurality of independent server systems, further comprising:

means for converting said consumer preferences designated for a particular user into said transmittable data format.

18. (original) The system for electronically managing consumer preferences according to claim 17, said means for converting consumer preferences further comprising

means for converting said consumer preferences into an extensible mark-up language data format.

19. (currently amended) ~~The system for electronically managing consumer preferences according to claim 12, said system further comprising:~~ A system for electronically managing consumer preferences, said system comprising:

means for transmitting consumer preferences for a particular user from a portable data processing system associated with said particular user in a transmittable data format to a plurality of independent server systems each associated with a particular consumer provider from among a plurality of consumer providers;

means for receiving designated offerings of services and products in accordance with said consumer preferences from said plurality of independent server systems at said portable data processing system in said transmittable data format; and

means for analyzing said designated offerings of services and products received from each of said plurality of independent server systems at said portable data processing system.

20. (original) The system for electronically managing consumer preferences according to claim 19, said means for analyzing said designated offerings of services and products further comprising:

means for analyzing said designated offerings of services and products according to travel time to said venues for said consumer providers in view of scheduling constraints for said particular user; and

means for recommending a selection of said venues with travel times that are acceptable in view of said scheduling constraints for said particular user.

B2
cont.
21. (original) The system for electronically managing consumer preferences according to claim 19, said means for analyzing said designated offerings of services and products further comprising:

means for analyzing said designated offerings of services and products according to price and budget constraints for said particular user; and

means for outputting a recommended selection of said designated products and services that are acceptable in view of said budgetary constraints to an output interface controlled by said portable data processing system.

22. (previously amended) The system for electronically managing consumer preferences according to claim 12, said system further comprising:

means for transmitting said user selection and payment authorization from said portable data processing system to a particular server system from among said plurality of independent server systems that provides said selection from among said designated offerings of services and products, in response to a user selection from among said designated products and services.

23. (currently amended) A program for electronically managing consumer preferences, residing on a computer usable medium having computer readable program code means, said program comprising:

means for transmitting consumer preferences for a particular user from a portable data processing system associated with said particular user in a transmittable data format to a plurality of independent server systems each associated with a particular consumer provider from among a plurality of consumer providers; ~~and~~

means for receiving designated offerings of services and products in accordance with said consumer preferences from said plurality of independent server systems at said portable data processing system in said transmittable data format; and

means for filtering output of said designated offerings of services and products at an output interface associated with said portable data processing system according to user output filtering preferences, such that said particular user receives a filtered selection of said electronically provided services and products via an output interface associated with said portable data processing system.

B2
cont.
24. (canceled)

25. (original) The program for electronically managing consumer preferences according to claim 23, said program further comprising:

means for detecting the location of said portable data processing system with a global positioning system associated with said portable data processing system; and

means for transmitting said location of said portable data processing system in said transmittable data format to said plurality of independent server systems.

26. (original) The program for electronically managing consumer preferences according to claim 23, said program further comprising:

means for transmitting a user profile with said consumer preferences for a particular user from said portable data processing system in said transmittable data format to a particular server system from among said plurality of independent server systems.

27. (original) The program for electronically managing consumer preferences according to claim 23, said program further comprising:

means for filtering transmission of said consumer preferences according to transmission preferences designated by said particular user at said portable data processing system.

28. (original) The program for electronically managing consumer preferences according to claim 23, said program further comprising:

means for converting said consumer preferences designated for a particular user into said transmittable data format.

29. (original) The program for electronically managing consumer preferences according to claim 28, said program further comprising:

means for converting said consumer preferences into an extensible mark-up language data format.

B2
cont.
30. (currently amended) ~~The program for electronically managing consumer preferences according to claim 23, said program further comprising:~~ A program for electronically managing consumer preferences, residing on a computer usable medium having computer readable program code means, said program comprising:

means for transmitting consumer preferences for a particular user from a portable data processing system associated with said particular user in a transmittable data format to a plurality of independent server systems each associated with a particular consumer provider from among a plurality of consumer providers;

means for receiving designated offerings of services and products in accordance with said consumer preferences from said plurality of independent server systems at said portable data processing system in said transmittable data format; and

means for analyzing said designated offerings of services and products received from each of said plurality of independent server systems at said portable data processing system.

31. (previously amended) The program for electronically managing consumer preferences according to claim 23, said program further comprising:

means for analyzing said designated offerings of services and products according to travel time to said venues for said consumer providers in view of scheduling constraints for said particular user; and

means for recommending a selection of said venues with travel times that are acceptable in view of said scheduling constraints for said particular user.

32. (original) The program for electronically managing consumer preferences according to claim 31, said program further comprising:

means for analyzing said designated offerings of services and products according to price and budget constraints for said particular user; and

means for outputting a recommended selection of said designated products and services that are acceptable in view of said budgetary constraints to an output interface controlled by said portable data processing system.

B2
cont.
33. (original) The program for electronically managing consumer preferences according to claim 23, said program further comprising:

means for transmitting said user selection and payment authorization from said portable data processing system to a particular server system from among said plurality of independent server systems that provides said selection from among said designated offerings of services and products, in response to a user selection from among said designated products and services.

34. (currently amended) A method for managing offerings by consumer providers, said method comprising the step of:

receiving consumer preferences for a particular user from a portable computer system in a particular transmittable data format at a particular server system from among a plurality of independent server systems, wherein each of said plurality of independent server systems respectively comprises a database of services and products provided by a particular consumer provider from among said plurality of consumer providers;

designating an offering of services and products for said particular user at said particular server system, in response to comparison of said consumer preferences with said database of services and products at said particular server system; and

transmitting said designated offering to said portable computer system in said particular transmittable data format;

determining a selection of electronic advertising associated with said designated products and services from among a plurality of electronic advertisements accessible at said particular server system;

controlling output of said selection of electronic advertising from said particular server system to a plurality of diverse output interfaces; and

adjusting a selection of output interfaces which receive a particular electronic advertisement according to the detected location of said portable data processing system associated with said particular user.

35. (original) The method for managing offerings by consumer providers according to claim 34, said step of transmitting said designated offering to said portable computer system in said particular transmittable data format further comprising the step of:

converting said designated services and products into an extensible mark-up language data format.

Claims 36-37. (canceled)

38. (original) The method for managing offerings by consumer providers according to claim 34, said method further comprising the steps of:

determining a selection of service recommendations for staff members of a particular consumer provider associated with said designated products and services selected for said particular user at said particular server system; and

controlling output of said selection of service recommendations from said particular server system to a plurality of diverse output interfaces that are accessible to said staff members.

39. (currently amended) A system for managing offerings by consumer providers, said system comprising:

means for receiving consumer preferences for a particular user from a portable computer system in a particular transmittable data format at a particular server system from among a

B2
cont.

plurality of independent server systems, wherein each of said plurality of independent server systems respectively comprises a database of services and products provided by a particular consumer provider from among said plurality of consumer providers;

means for designating an offering of services and products for said particular user at said particular server system, in response to comparison of said consumer preferences with said database of services and products at said particular server system; ~~and~~

means for transmitting said designated offering to said portable computer system in said particular transmittable data format; and

means for determining a selection of electronic advertising associated with said designated products and services from among a plurality of electronic advertisements accessible at said particular server system;

means for controlling output of said selection of electronic advertising from said particular server system to a plurality of diverse output interfaces;

means for adjusting a selection of output interfaces which receive a particular electronic advertisement according to the detected location of said portable data processing system associated with said particular user.

40. (original) The system for managing offerings by consumer providers according to claim 39, said means for transmitting said designated offering to said portable computer system in said particular transmittable data format further comprising:

means for converting said designated services and products into an extensible mark-up language data format.

Claims 41 and 42 (canceled)

43. (original) The system for managing offerings by consumer providers according to claim 39, said system further comprising:

means for determining a selection of service recommendations for staff members of a particular consumer provider associated with said designated products and services selected for said particular user at said particular server system; and

B2
cont.

means for controlling output of said selection of service recommendations from said particular server system to a plurality of diverse output interfaces that are accessible to said staff members.

44. (currently amended) A program for managing offerings by consumer providers, residing on a computer usable medium having computer readable program code means, said program comprising:

means for receiving consumer preferences for a particular user from a portable computer system in a particular transmittable data format at a particular server system from among a plurality of independent server systems, wherein each of said plurality of independent server systems respectively comprises a database of services and products provided by a particular consumer provider from among said plurality of consumer providers;

means for designating an offering of services and products for said particular user at said particular server system, in response to comparison of said consumer preferences with said database of services and products at said particular server system; ~~and~~

means for transmitting said designated offering to said portable computer system in said particular transmittable data format;

means for determining a selection of electronic advertising associated with said designated products and services from among a plurality of electronic advertisements accessible at said particular server system;

means for controlling output of said selection of electronic advertising from said particular server system to a plurality of diverse output interfaces; and

means for adjusting a selection of output interfaces which receive a particular electronic advertisement according to the detected location of said portable data processing system associated with said particular user.

45. (currently amended) A method for automatically electronically registering a user with a plurality of consumer providers, said method comprising the steps of:

receiving at each of a plurality of server systems a user profile comprising a plurality of profile elements transmitted in a particular transmittable data format for a particular user from a

B2
cont.

portable computer system, wherein each of said plurality of server systems is respectively associated with one of a plurality of consumer providers;

inserting each of said plurality of profile elements respectively into a specified plurality of electronic registration elements required for electronic registration at a particular server system from among said plurality of server systems; and

transmitting a registration indicator for said particular user from said particular server system to said portable computer system in said particular transmittable data format, such that said particular user is automatically registered with said plurality of consumer providers by transmitting said single user profile to said plurality of server systems; and

transmitting a registration cookie from said particular server system to said particular portable computer system.

46. (original) The method for automatically electronically registering a user according to claim 45, said method further comprising the step of:

storing said electronic registration in association with said particular registration indicator at said particular server system.

47. (original) The method for automatically electronically registering a user according to claim 46, said method further comprising the step of:

in response to receiving said registration indicator at said particular server system, retrieving said electronic registration for said particular user.

48. (original) The method for automatically electronically registering a user according to claim 45, said method further comprising the steps of:

automatically filtering a plurality of products and services offered by said particular consumer provider according to said user profile for said particular user; and

transmitting a specified offering from among said plurality of products and services to said portable computer system for said particular user.

49. (original) The method for automatically electronically registering a user according to claim 45, said step of receiving at each of a plurality of server systems a user profile comprising

B2
cont.

a plurality of profile elements transmitted in a particular transmittable data format for a particular user from a portable computer system, further comprising the step of:

receiving said user profile in an extensible mark-up language data format.

50. (canceled)

51. (currently amended) A system for automatically electronically registering a user with a plurality of consumer providers, said system comprising:

means for receiving at each of a plurality of server systems a user profile comprising a plurality of profile elements transmitted in a particular transmittable data format for a particular user from a portable computer system, wherein each of said plurality of server systems is respectively associated with one of a plurality of consumer providers;

means for inserting each of said plurality of profile elements respectively into a specified plurality of electronic registration elements required for electronic registration at a particular server system from among said plurality of server systems; ~~and~~

means for transmitting a registration indicator for said particular user from said particular server system to said portable computer system in said particular transmittable data format, such that said particular user is automatically registered with said plurality of consumer providers by transmitting said single user profile to said plurality of server systems; and

means for transmitting a registration cookie from said particular server system to said particular portable computer system.

52. (original) The system for automatically electronically registering a user according to claim 51, said system further comprising:

means for storing said electronic registration in association with said particular registration indicator at said particular server system.

53. (original) The system for automatically electronically registering a user according to claim 52, said system further comprising:

means for retrieving said electronic registration for said particular user, in response to receiving said registration indicator at said particular server system.

B2
cont.

54. (original) The system for automatically electronically registering a user according to claim 51, said system further comprising:

means for automatically filtering a plurality of products and services offered by said particular consumer provider according to said user profile for said particular user; and

means for transmitting a specified offering from among said plurality of products and services to said portable computer system for said particular user.

55. (original) The system for automatically electronically registering a user according to claim 51, said means for receiving at each of a plurality of server systems a user profile comprising a plurality of profile elements transmitted in a particular transmittable data format for a particular user from a portable computer system, further comprising:

means for receiving said user profile in an extensible mark-up language data format.

56. (canceled)

B2
cont.
57. (currently amended) A program for automatically electronically registering a user with a plurality of consumer providers, residing on a computer usable medium having computer readable program code means, said program comprising:

means for receiving at each of a plurality of server systems a user profile comprising a plurality of profile elements transmitted in a particular transmittable data format for a particular user from a portable computer system, wherein each of said plurality of server systems is respectively associated with one of a plurality of consumer providers;

means for enabling insertion of each of said plurality of profile elements respectively into a specified plurality of electronic registration elements required for electronic registration at a particular server system from among said plurality of server systems; ~~and~~

means for transmitting a registration indicator for said particular user from said particular server system to said portable computer system in said particular transmittable data format, such that said particular user is automatically registered with said plurality of consumer providers by transmitting said single user profile to said plurality of server systems; and

means for transmitting a registration cookie from said particular server system to said particular portable computer system.

58. (original) The program according to claim 57, said program further comprising:
means for storing said electronic registration in association with said particular registration indicator at said particular server system.

59. (original) The program according to claim 58, said program further comprising:
means for retrieving said electronic registration for said particular user, in response to receiving said registration indicator at said particular server system.

60. (canceled)

61. (original) A method for managing staff at a consumer provider, said method comprising the steps of:

B2
cont-
receiving at a server system associated with a particular consumer provider a plurality of consumer preferences associated with a particular user transmitted from a portable computer system associated with said particular user when said portable computer system is detected within a particular proximity of said particular consumer provider;

filtering at said server system said plurality of consumer preferences according to products or services provided by said particular consumer provider; and

controlling output of selective instructions for staff of said particular consumer provider, in response to filtering said plurality of consumer preferences according to products or services provided by said particular consumer provider, such that said staff for said particular consumer provider receive selective instructions for serving said particular user according to said plurality of consumer preferences and said products or services provided by said particular consumer provider when said particular user is within a particular proximity of said particular consumer provider.

62. (original) The method for managing staff at a consumer provider according to claim 61, said step of filtering at said server system said plurality of consumer preferences according to

products or services provided by said particular consumer provider further comprising the step of:

distinguishing a selection of products for said particular user from among a plurality of products offered by said particular consumer provider that satisfy said consumer preferences for said particular user.

63. (original) The method for managing staff at a consumer provider according to claim 61, said step of filtering at said server system said plurality of consumer preferences according to products or services provided by said particular consumer provider further comprising the step of:

distinguishing a selection of services for said particular user from among a plurality of services offered by said particular consumer provider that satisfy said consumer preferences for said particular user.

B2
cont -
64. (original) The method for managing staff at a consumer provider according to claim 61, said step of filtering at said server system said plurality of consumer preferences according to products or services provided by said particular consumer provider further comprising the step of:

distinguishing staff treatment of said particular user according to said consumer preferences for said particular user.

65. (original) A staff management system, said system comprising:

a server system associated with a particular consumer provider that includes a database of products or services provided by said particular consumer provider;

a transceiver associated with said server system for receiving a plurality of consumer preferences associated with a particular user transmitted from a portable computer system associated with said particular user when said portable computer system is detected within a particular proximity of said particular consumer provider;

a filtering element executable on said server system that filters said plurality of consumer preferences according to products or services provided by said particular consumer provider; and

an output controller for controlling output of selective instructions for staff of said particular consumer provider at a particular output interface, in response to filtering said plurality of consumer preferences according to products or services provided by said particular consumer provider, such that said staff for said particular consumer provider receive selective instructions for serving said particular user according to said plurality of consumer preferences and said products or services provided by said particular consumer provider when said particular user is within a particular proximity of said particular consumer provider.

66. (original) The staff management system according to claim 65, said filtering element further comprising:

means for distinguishing a selection of products for said particular user from among a plurality of products offered by said particular consumer provider that satisfy said consumer preferences for said particular user.

67. (original) The staff management system according to claim 65, said filtering element further comprising:

means for distinguishing a selection of services for said particular user from among a plurality of services offered by said particular consumer provider that satisfy said consumer preferences for said particular user.

68. (original) The staff management system according to claim 65, said filtering means further comprising:

means for distinguishing staff treatment of said particular user according to said consumer preferences for said particular user.

69. (original) A program for managing staff at a consumer provider, residing on a computer usable medium having computer readable program code means, said program comprising:

means for receiving at a server system-associated with a particular consumer provider a plurality of consumer preferences associated with a particular user transmitted from a portable computer system associated with said particular user when said portable computer system is detected within a particular proximity of said particular consumer provider;

B2
cont.

means for filtering at said server system said plurality of consumer preferences according to products or services provided by said particular consumer provider; and

means for controlling output of selective instructions for staff of said particular consumer provider, in response to filtering said plurality of consumer preferences according to products or services provided by said particular consumer provider, such that said staff for said particular consumer provider receive selective instructions for serving said particular user according to said plurality of consumer preferences and said products or services provided by said particular consumer provider when said particular user is within a particular proximity of said particular consumer provider.

70. (original) A method for managing electronic advertising from a consumer provider, said method comprising the steps of:

receiving at a server system associated with a particular consumer provider a plurality of consumer preferences associated with a particular user transmitted from a portable computer system associated with said particular user when said portable computer system is detected within a particular proximity of a plurality of output devices associated with said particular consumer provider;

filtering at said server system a plurality of electronic advertisements for products or services provided by said particular consumer provider according to said plurality of consumer preferences; and

controlling output of said filtered electronic advertisements from among said plurality of electronic advertisements to a particular output device from among said plurality of output devices wherein said particular user is detected within a particular proximity of said particular output device, such that said electronic advertisements for said particular retailer are adjusted at said plurality of output devices according to consumer preferences of users within a particular proximity of each of said plurality of output devices.

71. (original) An electronic advertising management system, said system comprising:

a server system associated with a particular consumer provider that includes a plurality of electronic advertisements for products or services provided by said particular consumer provider;

a transceiver associated with said server system for receiving a plurality of consumer preferences associated with a particular user transmitted from a portable computer system associated with said particular user when said portable computer system is detected within a particular proximity of said particular consumer provider;

a filtering element executable on said server system that filters said plurality of electronic advertisements according to said plurality of consumer preferences; and

an output controller for controlling output of said filtered electronic advertisements from among said plurality of electronic advertisements to a particular output device from among said plurality of output devices wherein said particular user is detected within a particular proximity of said particular output device, such that said electronic advertisements for said particular retailer are adjusted at said plurality of output devices according to consumer preferences of users within a particular proximity of each of said plurality of output devices.

72. (original) A program for managing electronic advertising from a consumer provider, residing on a computer usable medium having computer readable program code means, said program comprising:

means for receiving at a server system associated with a particular consumer provider a plurality of consumer preferences associated with a particular user transmitted from a portable computer system associated with said particular user when said portable computer system is detected within a particular proximity of a plurality of output devices associated with said particular consumer provider;

means for filtering at said server system a plurality of electronic advertisements for products or services provided by said particular consumer provider according to said plurality of consumer preferences; and

means for controlling output of said filtered electronic advertisements from among said plurality of electronic advertisements to a particular output device from among said plurality of output devices wherein said particular user is detected within a particular proximity of said particular output device, such that said electronic advertisements for said particular retailer are adjusted at said plurality of output devices according to consumer preferences of users within a particular proximity of each of said plurality of output devices.